General guidelines

- **Turn off the computer,** unless you share folders with other users, or use remote desktop to access your computer. Before you leave the office make sure that all hardware and extra peripherals are turned off.

- **Plug all equipment into a smart (power) strip** allowing you to shut down all peripheral devices.

- **Turn off the monitor instead of using a screensaver**.

- **Share hardware where appropriate and save energy**.

- **Set computers, copiers and other machines on stand-by** mode during office hours.

- Check the **power management options** of your PC and monitor and configure the preferred, energy saving settings.

- **Turn off the printer** if you don't use it for a longer period.

- **The less paper you use, the less energy you are wasting**. Use recycled paper if possible.

- **Print on both sides of the paper** and/or print multiple pages on one piece of paper.

- Scan and **distribute documents electronically** instead of paper copies.

- Look for **energy-saving** and **duplexing** features on the machine.

COMPUTERS, LAPTOPS, MONITORS

IT equipment consumes more than 25% of all global commercial energy - computer systems are demanding more power than before, due to factors like faster video cards or processors, larger hard drives and other components. The good news is that with a few small adjustments we can save a significant amount of energy related to our computer use.

Try the following tips in the office. Not all of them apply to every machine and system, so choose the ones that work for you.

- **80+ power supply** – Make sure that your computer's power supply is 80 Plus Certified – meaning that it is at least 80% efficient (See 80 Plus Power Supply Units).

- **Turn down the brightness -** Turning down the brightness of the computer monitor also saves energy. Configure your monitor to turn off or enter power-saving mode after 20 minutes (or less) of inactivity.

- **Turn off the monitor instead of using a screensaver -** Screensavers do not save energy, so turn off the monitor instead.

- **Turn off the computer,** unless you share folders with other users, or use remote desktop to access your computer. Before you leave the office **make sure that all hardware and extra peripherals are turned off.**

- **Plug all equipment into a smart (power) strip -** A smart strip allows you to plug your computer into the main outlet and several other devices into the other slots on the strip. When the computer is on, the other outlets receive energy and when the computer is shut off, the power is cut to the monitor, the printers, the speakers, the internet router, and any peripheral equipment.

- **Stand-by -** Set computers, copiers and other machines on stand-by/sleep/suspend mode during office hours. But make sure that all equipment is turned off (switched off at the mains) at the end of the day rather than left on standby.

PRINTING AND COPYING

Printers and copiers both use a lot of energy. To reduce the amount of energy they use, here are a few things to keep in mind.

- In case of printers and copy machines **activate energy-saving features** such as sleep mode, duplexing, and auto-off as default settings.

- **Use the recommended power management settings** to shut the printers off or go into hibernate mode when the machine is not in use. Turn the printers off at night if you do not have an auto-off feature.

- **Keep your paper use in mind** – Consider how much energy it takes to make new paper: approximately 15 watt-hours per sheet! So the less paper you use, the less energy you are wasting. Use recycled paper if possible.

- **Don't print out everything**, unless it is absolutely necessary.

- **Preview before you print** - Check if there are any pages that are not worth printing.

- **Print and copy on both sides of the paper** – Duplexing can usually be found in the menu. „Organizations can potentially reduce annual paper costs by 30% by selecting duplex printing as the default option." (by Gartner)

- **Print multiple pages on one piece of paper** - This is particularly useful when printing out lecture slides - four slides per page is still readable.

- **Print in greyscale rather than colour** - an easy way to save your colour ink cartridge.

- **Laser printers use more energy -** Though they have a lot of advantages – e.g. superior print quality - they are definitely not energy-saving, even during standby mode. If you want to save energy, an inkjet printer or a slower laser printer is a better option.

- Scan and **distribute documents electronically** instead of paper copies.

- **Monitor your printing habits** with a print awareness tool - see your print usage, using an easy, interactive desktop interface, and take steps to improve print behaviour.

LESS EQUIPMENT, LESS ENERGY

- **Use workgroup printers and Multi-Functional Devices** that print scan and copy - they may save energy over lots of individual printers.

- **Share hardware where appropriate** - Hardware like printers, scanners or routers that are connected to a computer system are also using power. A way to save energy is to share these devices where possible.
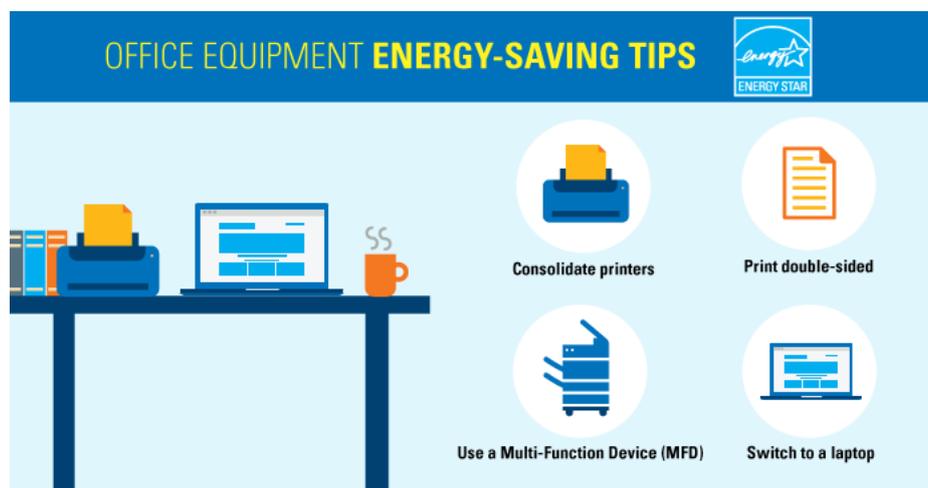
TURN IT OFF WHEN NOT IN USE

- **Turn off the monitor** if you are not going to use your PC for more than 15-20 minutes. Turn off both the CPU and monitor if you are not going to use your PC for more than 2 hours.

- **Configure your monitor to turn off** or enter power-saving mode after 20 minutes (or less) of inactivity.

- **Disable devices that are not needed** - Laptops come with all sorts of devices that a user might not need and these devices - if enabled - consume energy. If you use the built in network adapter and a cable to connect to the Internet you probably do not need Wi-fi, Bluetooth or infrared.

- **Standby is not energy-saving** - If you're not using your printer for a longer period, turn it off, it won't use more energy to power up than it does while in standby.

- **Turn off the copier when not in use** - It does not make the machine wear out faster.

YOU CAN ALSO....

- Download **free energy saving PC software** from the Internet that features different customizable power schemes. With these you can save energy by automatically switching off the monitor, the hard drive and the whole computer after a certain period of time.

- Set the fast draft setting as default. This way you save on ink without the hassle of setting fast draft every time you print.

- **Buy energy efficient products - By choosing** energy efficient products you can save energy already at the start ☺ Look for logos like the Energy Star on computer hardware as it offers a good energy efficiency, or buy EnergyStar 4.0 compliant equipment, as those specifications are very tight on energy use. An EnergyStar 4.0 computer uses about 25% of the energy that a non-EnergyStar machine can use.

DID YOU KNOW?

Many people think that turning off a computer will reduce its lifetime and also it needs more power to turn the computer off and on again, than to put it to hibernate mode.

- In fact the small amount of **energy the computer needs to start is still less than the energy used when the machine is running for long periods of time**. And the less time a PC is on, the longer it will last. PCs also produce heat, so turning them off reduces energy used for cooling in the summer. Switching off printing and copy machines do not make them wear out faster either.

- ENERGY STAR monitors consume 2 watts or less in sleep mode.

- A printer and speakers left idle can easily drain 40 watts.

TOP TIPS FOR CHAMPIONS

- Learn **how to change the power management settings on your computer**. Windows users need to look for the Power Options settings in the Control Panel, and make the necessary settings to save energy during the operation of the machine. Mac users need to adjust the Energy Saver preferences, and reduce the time for the computer to go to sleep mode.

- Take advantage of the **latest energy-saving features on digital copiers** that allow you to program times and days of use.

- Help users become **more aware of their printing and copying habits**.

- Make sure everyone in the office is **aware of and use the energy-saving practices.**

A legzöldebb áram az, amit nem kellett előállítani!

FURTHER READING AND IDEAS

Energy efficient office buildings - Guidelines

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